

Application No.: 10/602,422
Response to OA of 9/3/04

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REMARKS

Reconsideration is respectfully requested.

Claims 1-20 stand rejected. Claims 3 and 8 have been amended. Claim 13 has been cancelled. Claims 1-12 and 14-20 are pending.

With respect to all amendments and cancelled claims, Applicants have not dedicated or abandoned any unclaimed subject matter and moreover have not acquiesced to any rejections and/or objections made by the Patent Office. Applicants reserve the right to pursue prosecution of any presently excluded claim embodiments in future continuation and/or divisional applications.

Rejections under 35 U.S.C. § 112 – First and Second Paragraphs

A. Claims 3, 8, and 13

The Examiner has rejected claims 3, 8, and 13 under 35 U.S.C. § 112, first and second paragraphs.

The Examiner asserts that “the terms ‘shallow,’ ‘sufficient,’ and ‘deep’ are relative terms which render the claim[s] indefinite.”

Claims 3 and 8 as amended no longer recite “shallow,” “sufficient,” or “deep.” Claim 13 has been cancelled. This ground for rejection is therefore moot. Applicants respectfully request that it be withdrawn.

B. Claims 1-20

The Examiner has rejected claims 1-20 under 35 U.S.C. § 112, second paragraph “as being incomplete for omitting essential steps, such omissions amounting to a gap between the

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steps. The Examiner asserts that the claims lack any steps at all, and asserts that "providing" is not a step.

Claims 1-17 are directed to a fluid dynamic bearing assembly. Accordingly, these claims do not require method steps as alleged by the Examiner.

With respect to claims 18-20, Applicants respectfully traverse the Examiner's contention that a step of "providing" is not a step. As stated in the MPEP 2173.02:

"the examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available." MPEP 2173.02 (emphasis added).

Further, the MPEP states:

"the essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity;" MPEP 2173.02; and

"If the language of the claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement, a rejection of the claims under 35 U.S.C. 112, second paragraph would be appropriate." MPEP 2173.02.

In the present case, the term "providing" is an active, affirmative step. One of ordinary skill in the art could readily determine the metes and bounds of the steps of "providing at least one set of asymmetric bearing grooves" and "providing regulating means" in a "method for providing axial displacement feedback." The claim describes the subject matter with a

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reasonable degree of clarity and particularity. The term "providing" therefore satisfies the requirements of 35 U.S.C. §112.

Applicants respectfully request that this ground for rejection be withdrawn.

Rejections under 35 U.S.C. § 102(e)

A. Sakatani

The Examiner has rejected claims 1-4, 6-9, 11-14, and 18-20 under 35 U.S.C. § 102(e) as anticipated by Sakatani et al. The Examiner states that he finds "all claimed subject matter to be present," and directs Applicant to Fig. 1.

Sakatani fails to disclose a regulating region, particularly a regulating region that acts with the journal bearing as required by the claims.

It appears that the Examiner is focusing on the "lubricating pits 12" disclosed in Sakatani Fig. 1. The lubricated pits disclosed in Sakatani, however, do not correspond to a "regulating region" or "regulating means." Claims 1, 6, 11, and 18 require that when the shaft and the sleeve are aligned, the regulating region or regulating means and the asymmetric journal bearing grooves generate nominal net journal asymmetry pressure, and when the shaft and the sleeve are not aligned, the regulating region or regulating means and the asymmetric bearing grooves generate increased journal asymmetry pressure or decreased journal asymmetry pressure.

Sakatani discloses that:

"lubricant such as oil or grease filled in the gap of the radial bearing between the radial bearing surface 8 and the radial receiving surface 10 and the lubricant pits 12 is gradually forced out and discharged from the gap of the radial bearing and the lubricant pits 12 during rotation, thereby bringing about a change of the torque

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in the bearing to reduce the rotational accuracy and, in the worst case, causing scorching of the bearing.” Col. 2 lines 14-23.

Sakatani makes no link between lubricating pits and asymmetry, or asymmetry pressure. Oil flowing out of lubricating pits describes a motor ceasing to function, not an increased or decreased in journal asymmetry pressure depending on alignment of the shaft and sleeve.

In addition, applicants respectfully point out that Sakatani does not inherently anticipate the claims. The Examiner’s burden in making such a rejection is summarized in M.P.E.P. § 2112:

In relying on the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. M.P.E.P. § 2112 (emphasis in original).

Moreover, “the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” Id. (quoting In re Oelrich, 212 USPQ 323, 326 (CCPA 1981)). The claimed characteristics of the regulatory region and asymmetric journal bearing grooves do not necessarily flow from the teachings of Sakatani. As noted above, Sakatani makes no link between lubricating pits and asymmetry, or asymmetry pressure. In fact, Sakatani describes a loss of function associated with the lubricated pits. The Examiner thus has not met the prima facie burden to establish inherency.

Applicants respectfully request that this ground for rejection be withdrawn.

B. Asada

Claims 5, 10, 15, and 17 stand rejected under 35 U.S.C. § 102(e) over Asada. The Examiner asserts that “all claimed subject matter” is presented in Asada, and points specifically to Figure 1.

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Claim 5 depends from and includes all the limitations of claim 1. Claim 10 depends from claim 6, and includes all the limitations of claim 6. Because Asada fails to teach multiple limitations of claims 1 and 6, Asada fails to anticipate dependent claims 5 and 10.

Claims 1 and 6 both require "a sleeve having one set of asymmetric journal bearing grooves thereon." Figure 1 of Asada has a shaft with asymmetric journal bearing grooves, not a sleeve with asymmetric journal bearing grooves. Moreover, claims 1 and 6 requires "a shaft adjacent the sleeve and having a regulating region." No such regulating region is disposed on the shaft. In addition, Asada fails to teach that when the sleeve and the shaft are aligned, the regulating region and the asymmetric journal bearing grooves generate nominal net journal asymmetry pressure, and when the shaft and the sleeve are not aligned the regulating region and the asymmetric bearing grooves generate increased net journal asymmetry pressure or decreased journal asymmetry pressure. Absent such a teaching, Asada fails to anticipate claims 1 and 6. Therefore, Asada fails to anticipate claims 5 and 10 that depend from claims 1 and 6, respectively.

Claims 15 and 17 depend from independent claim 11, and include all limitations of claim 11. Claim 11 requires "one of the shaft or the sleeve has at least one set of asymmetric journal bearing grooves thereon; wherein the other of the shaft or the sleeve has regulating means for axially aligning the sleeve with the shaft."

Asada fails to meet each claim limitation of claims 15 and 17. In Asada Figure 1, grooves are disposed on the shaft, and the facing sleeve lacks a "regulating region," as required by claim 11. Nowhere in Asada is there any indication that a regulatory means as claimed is disposed on the shaft or sleeve. In addition, Asada fails to teach that "when the sleeve and the shaft are aligned, the regulating means and the asymmetric journal bearing grooves generate nominal net journal asymmetry pressure and when the shaft and the sleeve are not aligned the regulating means and the asymmetric bearing grooves do not generate nominal net journal asymmetry pressure."

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Applicants respectfully point out that Asada does not inherently anticipate the claims. The Examiner's burden in making such a rejection is summarized in M.P.E.P. § 2112:

In relying on the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. M.P.E.P. § 2112 (emphasis in original).

Moreover, "the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." Id. (quoting In re Oelrich, 212 USPQ 323, 326 (CCPA 1981)).

The claimed characteristics of the regulatory region and asymmetric journal bearing grooves do not necessarily flow from the teachings of Asada. The Examiner thus has not met the prima facie burden to establish inherency.

Applicants respectfully request that this ground for rejection be withdrawn.

Rejections under 35 U.S.C. § 103

The Examiner has rejected claim 16 under 35 U.S.C. § 103 over Sakatani et al. in further view of official notice of common knowledge in the art, or, in the alternative, engineering design choice.

The Examiner states that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the grooves on the bearing since it was known in the art to do so to provide the function(s) disclosed." The Examiner argues that "[a]lternatively, the examiner finds the broad provision of this/these features vis-à-vis that those disclosed by the reference solve(s) no stated problem insofar as the record is concerned and, accordingly, would have been a matter of design choice."

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35 U.S.C. § 103(a) requires that "differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). The prima facie case must satisfy three requirements: 1) the references must teach or suggest all the claim limitations; 2) the reference combined with general knowledge must include a suggestion or incentive to modify the reference; and 3) the modification or combination must have a reasonable chance of success.

First, the Examiner fails to teach every limitation of claim 16. Claim 16 depends from claim 11. Sakatani fails to disclose multiple limitations of claim 11 for all the reasons stated in the response to the rejection over Sakatani under 35 U.S.C. §102(e). Second, the Examiner has failed to provide the requisite motivation or suggestion to modify the reference. Third, the Examiner fails to provide the requisite expectation of success.

Applicants respectfully request that this ground for rejection be withdrawn.

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

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In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 146712010200. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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